# operating manual *and* parts list

**MODEL 2320-3**
**20-INCH**
**ELECTRIC START**
**ROTARY MOWER**

MODEL CONFORMS TO SAFETY STANDARDS SPONSORED BY OPEI PROGRAM
OUTDOOR POWER EQUIPMENT INSTITUTE
MODEL TESTED BY INDEPENDENT LABORATORY

YARD-MAN

1410 West Ganson Street — Jackson, Michigan 49202

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# RULES FOR SAFE OPERATION

Your rotary mower is a precision piece of power equipment. Engineering skill and experience have been combined to provide the ultimate in safety and efficiency, however, as with any type of power equipment, carelessness or error on the part of the operator can result in injury. Exercise extreme caution at all times.

1. **KNOW YOUR MACHINE** Read the Owner's Manual carefully - learn how to operate your mower properly.
2. **MAKE SURE THE LAWN IS CLEAR** of sticks, stones, wire and other hazardous items from lawn before mowing. Such items are dangerous to both the mower and individuals in the vicinity of the mower.
3. **ADD FUEL** before starting engine - - - never when engine is hot or running.
4. **ALWAYS STOP ENGINE** (turn off switch or disconnect sparkplug wire) before attempting any repairs or adjustments.
5. **START ENGINE CAREFULLY** Always stand at side opposite discharge chute. **NEVER PLACE HANDS OR FEET UNDER THE MOWER OR NEAR THE DISCHARGE CHUTE WHILE THE ENGINE IS RUNNING.**
6. **DO NOT TILT MOWER** at extreme angle while engine is running. Cut grass on hills and banks sideways.
7. **STOP THE ENGINE** when not cutting grass.
8. **DO NOT ALLOW MINORS** to operate mower unless thoroughly instructed and and properly supervised.
9. **KEEP CHILDREN AND PETS AWAY** from area at all times during mowing operation.
10. **ALWAYS CHECK FOR DAMAGE** If you should strike some foreign object while mowing, stop your mower. Inspect for and repair any damage before restarting and operating the mower.

## SUGGESTIONS FOR MORE EFFICIENT, AND MAINTENANCE-FREE OPERATION

### GENERAL MOWING

1. Always keep mower blade "Knife" sharp and balanced for maximum cutting efficiency.
2. Always start engine with mower on level surface where blade will not drag on tall grass or other obstructions. After starting, let engine warm up several minutes at slow speed before starting to mow.
3. When mowing under normal conditions, run mower at 1/2 to 3/4 throttle for best results.
4. When cutting tall heavy growth, or on rough ground, place mower in highest cut position and gradually reduce to desired cutting height over course of two or three mowings.

### TO RECHARGE BATTERY

Plug the charger cord into a 120V AC outlet to recharge. It is not possible to overcharge the battery and as current demand is extremely low, leave the charger connected as much as possible during the etire mowing season.

NOTE: If the temperature is below 40°F move the battery to a warmer area before charging. As this battery will not freeze, it is not necessary to maintain a charge except during the mowing season.

## MAINTENANCE

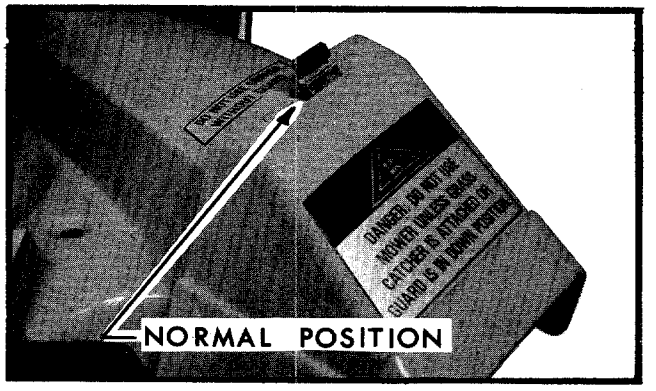
Your mower like all machines with moving parts must receive care and maintenance. The following tips, if used, will contribute many trouble-free hours to your mower.

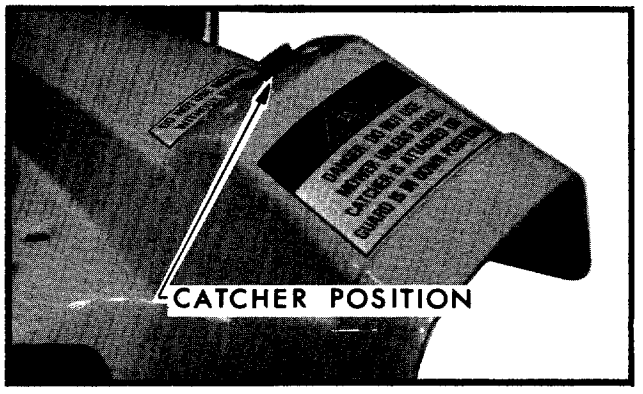
1. Check oil level frequently. When checking or changing oil, make sure dirt and debris is cleaned off oil sump before removing oil plug.
2. Keep mower clean, especially the engine and underside of mower housing.
3. Check all nuts, bolts and screws occasionally to be sure mower is in good operating condition.
4. Should excessive vibration develop, check your blade and crankshaft immediately. Do not operate mower with an unbalanced blade, a damaged blade or a damaged crankshaft.
5. The wheel bearings are pre-lubricated at the factory and should require no further attention until mower is serviced.
6. If you are going to store your mower for any length of time (30 days or longer) it is important that the following steps be taken:
   a. Drain the gas tank. Start the engine and allow it to run out of gas. Gasoline left in the engine will leave gum deposits in the carburetor and gas tank.
   b. Clean engine of all foreign matter.
   c. Lubricate cylinder by removing the sparkplug and pouring one ounce of clean lubricating oil through the sparkplug hole into the cylinder. Crank engine slowly to spread oil and replace sparkplug. To start after storage remove sparkplug and rotate engine with starter to remove excess oil.
7. Just as your automobile needs professional mechanical maintenance from time to time, so does your air cooled engine. A yearly tune-up and check by a Qualified Service Center is recommended to avoid break-downs and unnecessary delays during the cutting season.

## MISSILE DEFLECTOR

The missile deflector and foot guard are intended to add to the safety of the mower by deflecting objects thrown out the discharge chute and from under the housing, in a downward direction. It is important that the deflector and guard are in the proper position at all times. To change positions of the deflector, press the spring lever to free the deflector, move to the desired location then release the lever.

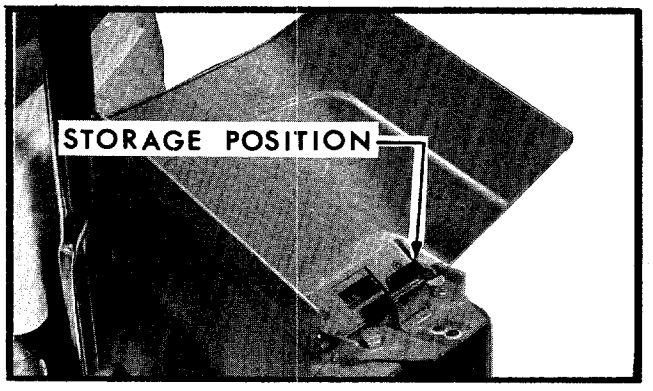
NORMAL OPERATING POSITION: When operating your mower without the grass catcher the deflector should be in the normal operating posision as shown.




CATCHER POSITION: When using the grass catcher, the deflector must be in the position as shown. The catcher mounting bracket is shown installed, for details showing how to install and use the Yard-Man Grass Catcher see the instruction sheet packed with the catcher.

STORAGE POSITION: This position is to be used only when storing your mower or for ease in transporting your mower in another vehicle. Take care not to operate your mower with the deflector in this position.



# PREPARING YOUR YARD-MAN MOWER FOR USE

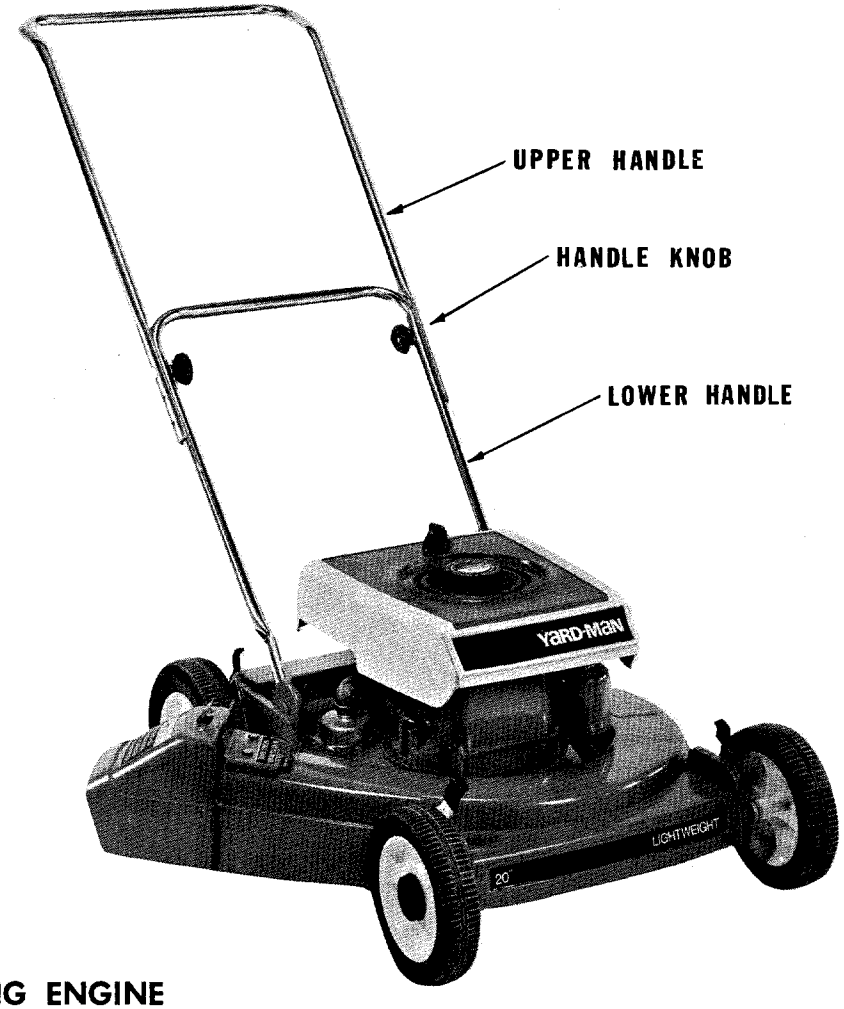
## SET-UP

Your mower is shipped in one carton, completely assembled with the handle asembly, foot guard and missile deflector in the shipping or storage position. Use care and caution in removing your mower from the carton. DO NOT attempt to lift the unit by the engine shroud.

To place the handle in operating position, press the up-stop lever to release the handle then lift the handle assembly until the lower section snaps into the operating position as shown. The upper section can now be moved into place. Tighten the upper and lower sections together with the handle knobs.

NOTE: When folding handle for storage, make sure the handle knobs are loose enough to allow the upper section to pivot freely around the mounting bolts.

CAUTION: Care should be taken not to force the deflector from the storage position to the catcher position without first locating the spring lever properly. To do this, first remove the sparkplug wire and fasten it at least one inch (1") away from the sparkplug. Guide the spring lever, by hand, into the clearance slot on the underside of the deflector then hinge the deflector into the catcher or operating positions.




## BEFORE STARTING ENGINE

Remove OIL FILL DIPSTICK and fill with S.A.E. No. 30 oil, to the level indicated on the dipstick. CAUTION: DO NOT OVERFILL.

Fill fuel tank with a good grade regular clean, fresh gasoline. DO NOT MIX OIL WITH GASOLINE. FOR COMPLETE ENGINE INFORMATION, READ ENGINE INSTRUCTION BOOKLET BEFORE STARTING ENGINE.

## BATTERY CARE

Your Yard - Man mower has a battery charging system built into the charger cord. Charge the battery before initial use (6 to 12 hours) and continually thereafter whenever the mower is not in use during the mowing season. To maintain a charge, simply plug the charger cord into a 120 volt AC outlet.
NOTE: New batteries are partially charged and will require an initial charge of 20 to 24 hours to become fully charged. A 6 to 12 hour initial charge should be sufficient for a number of starts.

## TO START ENGINE

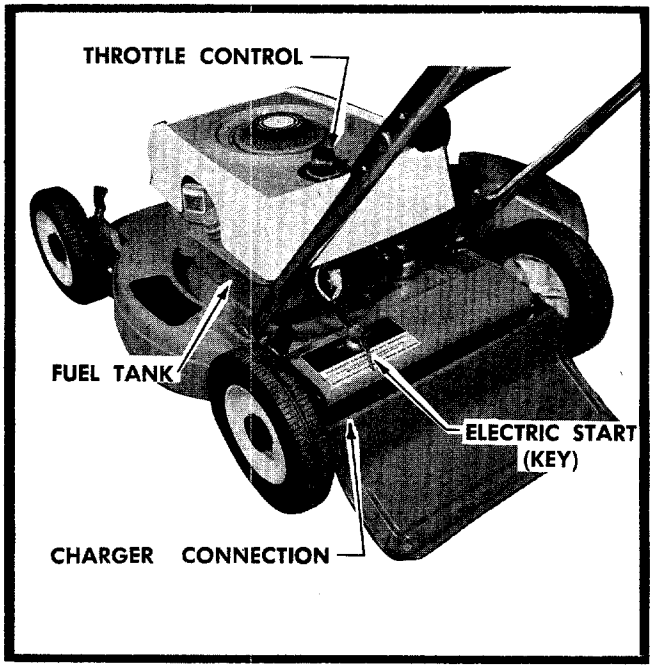
1. Place throttle control knob in HEAVY or NORMAL cutting position.
2. Turn key to start position and hold until the engine starts—then release.
3. When engine starts, move throttle control knob to run position (slow speed) until engine warms up.

NOTE: The fuel tank should be completely full before starting for the first time.

IMPORTANT: If engine floods, place throttle control knob in "STOP" position and turn the engine over for about four or five seconds. Then reposition control lever to"'Run" position and start engine.

Engine flooding is usually caused by a dirty air cleaner. Service air cleaner regularly as noted in engine operation and maintenance instruction.

If engine continues to flood even with a clean air filter, lean carburetor adjustment screw 1/8 turn (See engine instructions)




## TO STOP ENGINE

To stop the engine, turn key to "OFF" position. The engine may also be stopped by moving throttle control to "STOP" position.

## TIPS TO OBTAIN BEST ELECTRIC STARTER PERFORMANCE

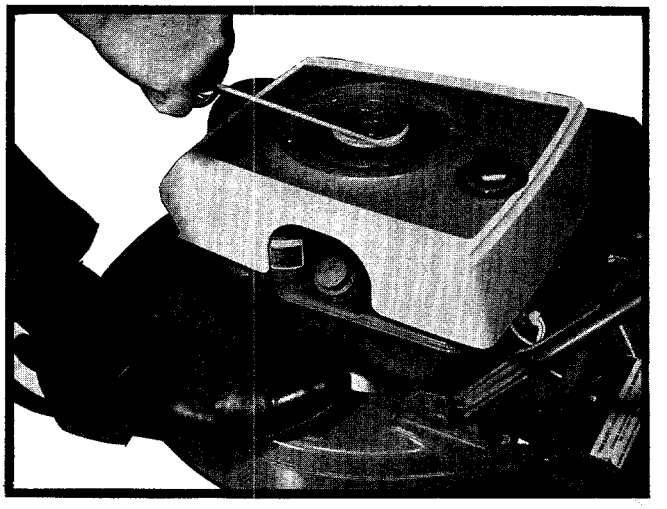
a. Short starting cycles (2 to 3 seconds) provide the longest battery life.

b. Keep the battery fully charged. This assures quick, and easy starts. (See Pg. 3)

c. Start engine with mower on sidewalk or driveway where the cutting blades are out of the grass in an unloaded condition. If starts must be made on the lawn, move mower over previously cut grass

d. Keep the underside of the mower deck clean. Periodically scrape or wash away any built up grass which might add resistance to the cutter blade and electric starting system. (See Pg. 6 for instructions on use of wash out port.)

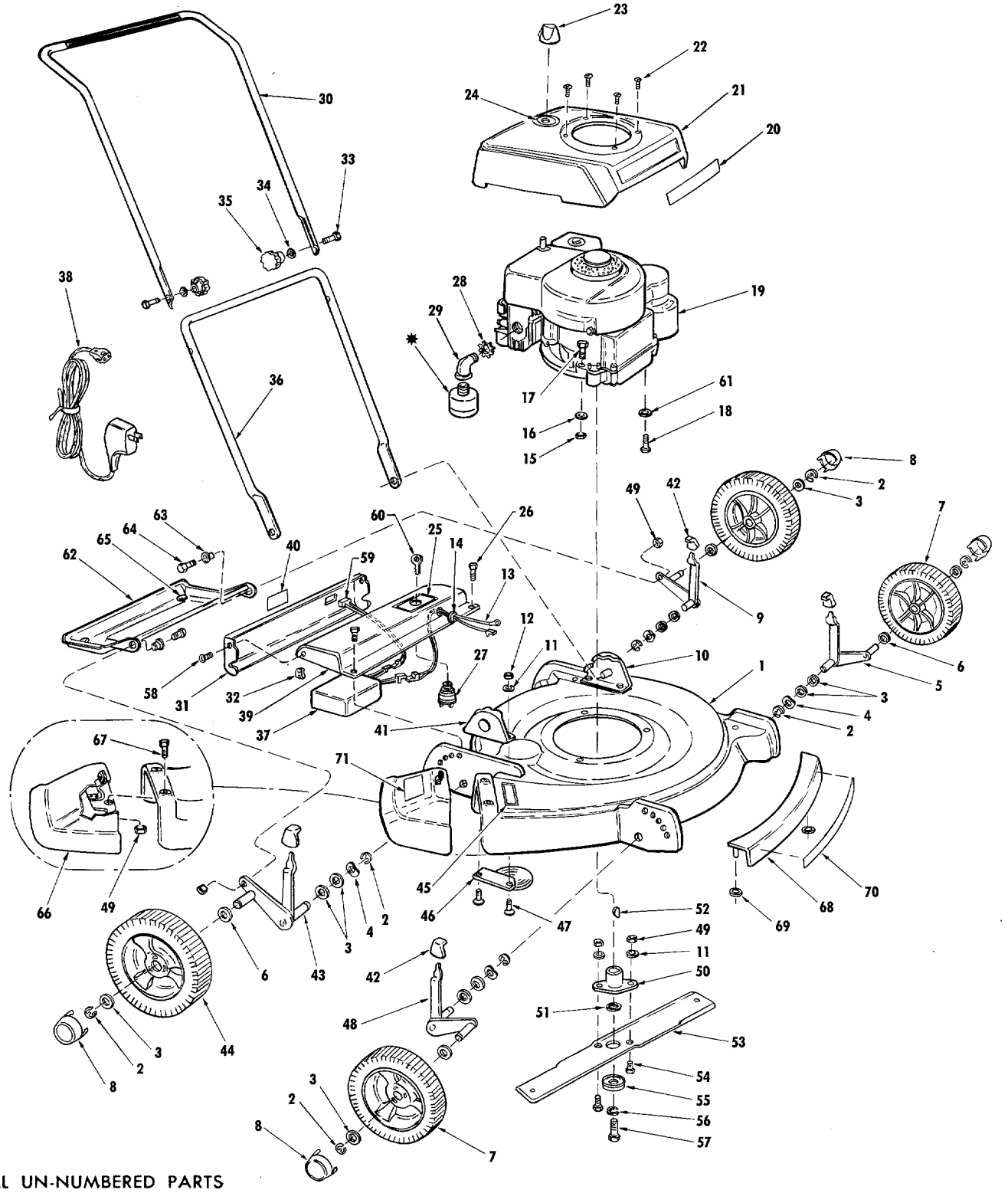
AUXILIARY ROPE STARTER can be used to start the engine if the batteries run low, or if the engine cannot be started electrically. Remove the plastic cover as shown. Place engine control in "FAST" and key in "On" position. Place rope knot in the impression and wind rope clockwise around pulley and over the knot holding it in place. Pull rope rapidly. Repeat if necessary. (NOTE: Auxiliary starter rope is supplied with your mower.)



## CAUTION

Always remove the key from the switch when leaving your mower unattended or when mower is not in use.

## MODEL 2320-3




ALL UN-NUMBERED PARTS INTER-CHANGEABLE WITH OPPOSITE SIDE.

For Parts List — See Pg. 7

✸ Engine Part—Refer to Engine Model and Type.

## PARTS LIST

# MODEL 2320-3

Your cutting unit is right hand (R.H.) or left hand (L.H.) as you cut.

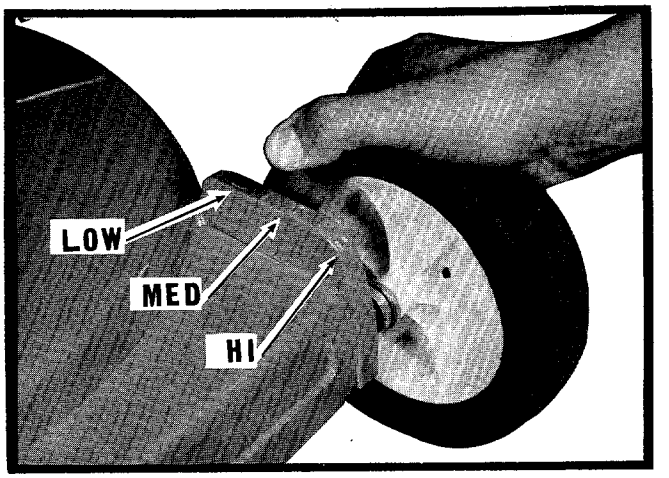
| REF. NO. | PART NO. | NAME OF PART |
|---|---|---|
| 1 | 5601-175-55 | Blade Housing |
| 2 | 1650-1 | Retaining Ring |
| 3 | 1540-90 | *Washer (½ x 1.0 x .030) |
| 4 | 1552-2 | *Washer—Wave |
| 5 | 2123-31 | Ass'y—Front Axle (L.H.) |
| 6 | 1540-86 | Washer (½ I.D. x 1.0 O.D. x ⅛) |
| 7 | 2108-183-41 | Ass'y—Wheel & Tire (7 x 1.75) |
| 8 | 2674-39-40 | Hub Cap |
| 9 | 2123-35 | Ass'y—Rear Axle (L.H.) |
| 10 | 2132-115-55 | Ass'y—Bracket & Pin (L.H.) |
| 11 | 1018 | *Washer—Lock (¼ Split) |
| 12 | 1538-19 | *Nut (¼-20 Hex Lock) |
| 13 | 2188-10 | Ass'y—Wire Harness |
| 14 | 1657-44 | Bushing (Grommet) |
| 15 | 1538-6 | *Nut—Lock (5/16-18 Hex) |
| 16 | 41-046 | *Washer (11/32 x ⅞ x 3/32) |
| 17 | 1509-75 | *Bolt (5/16-18 x 1½ Hex Hd.) |
| 18 | 1513-56 | Bolt (⅜-16 x 1¼ Special) |
| 19 | | Ass'y—Engine Briggs & Stratton Model 92905 Type 0840-01 |
| 20 | 1616-564 | Label—Engine Shroud |
| 21 | 4699-97 | Shroud—Engine |
| 22 | 1526-1 | Screw—Shroud Retaining |
| 23 | 2643-44 | Knob—Throttle Control |
| 24 | 1616-576 | Label—Dial Control |
| 25 | 1616-480 | Label—Key Switch |
| 26 | 1511-33 | Bolt (¼-20 x ½ Thd. Cutting) |
| 27 | 2160-11 | Switch—Electric Start |
| 28 | 1539-67 | Nut—Elbo Retaining |
| 29 | 1756-4-47 | Elbow—Exhaust |
| 30 | 2117-103 | Ass'y—Upper Handle |
| 31 | 3677-28-55 | Shield—Battery Case |
| 32 | 1539-8 | Nut (Special) |
| 33 | 1513-103 | Bolt (5/16-18 x 1¾ Special) |
| 34 | 1025 | Washer—Lock (5/16 Split) |
| 35 | 1643-47 | Knob—Hand |
| 36 | 3712-132-01 | Handle—Lower |
| 37 | 2721-8 | Battery |
| 38 | 1772-1 | Ass'y—Battery Charger |
| 39 | 2118-59-55 | Ass'y—Cover & Clips |
| 40 | 1605-607 | Name Plate |
| 41 | 2132-116-55 | Ass'y—Bracket & Pin (R.H.) |
| 42 | 2643-43 | Knob—Adjust Lever |
| 43 | 2123-36 | Ass'y—Rear Axle (R.H.) |
| 44 | 2108-187-41 | Ass'y—Wheel & Tire (8 x 1,75) |
| 45 | 1616-525 | Label |
| 46 | 2556-18 | Deflector—Muffler |
| 47 | 1529-15 | *Bolt (¼-20 x ⅝ Carriage) |
| 48 | 2123-30 | Ass'y—Front Axle (R.H.) |
| 49 | 1538-8 | *Nut (¼-20 Hex Hd. Lock) |
| 50 | 1143-5-55 | Ass'y—Blade Adaptor |
| 51 | 1624-135 | Washer (⅜ x 1 x .210) |
| 52 | 1646-8 | Key (#6 Woodruff) |
| 53 | 3604-39-55 | Blade—Grass |
| 54 | 1509-34 | *Bolt (¼-20 x ¾ Hex Hd.) |
| 55 | 1543-39 | Washer (Special) |
| 56 | 1542-8 | *Lockwasher (⅜ Split) |
| 57 | 1509-101 | *Bolt (⅜-24 x 1⅛ Hex Hd. Lock) |
| 58 | 117 | Screw (10-32 x 7/16 Ph. Hd.) |
| 59 | 1188-42 | Ass'y—Extension Wire |
| 60 | 1646-38 | Key—Ignition |
| 61 | 1008 | *Washer (13/32 x 13/16 x 1/16) |
| 62 | 2189-8-55 | Ass'y—Rear Foot Guard |
| 63 | 1657-75 | Bushing |
| 64 | 1509-35 | *Bolt (¼-20 x ⅝ Hex) |
| 65 | 1550-6 | Grommet |
| 66 | 2189-9-55 | Ass'y—Missile Deflector |
| 67 | 1509-74 | *Bolt (¼-20 x ⅞ Hex) |
| 68 | 3699-105-55 | Shroud—Blade Housing |
| 69 | 1539-20 | Nut—Special |
| 70 | 2616-556 | Label—Shroud |

*Standard Hardware Item—Purchase Locally

## TO ADJUST HEIGHT OF CUT

The cutting height of your mower can easily be adjusted from low to high cut. Place your hand on the outside of the wheel, spring the adjusting lever, with your thumb, outward until the locating trunnion on the lever is free from the housing. Move the wheel and lever to the height of cut desired. Release the lever, allowing the trunnion to drop into the proper locating hole. Each wheel must be set at the same height.

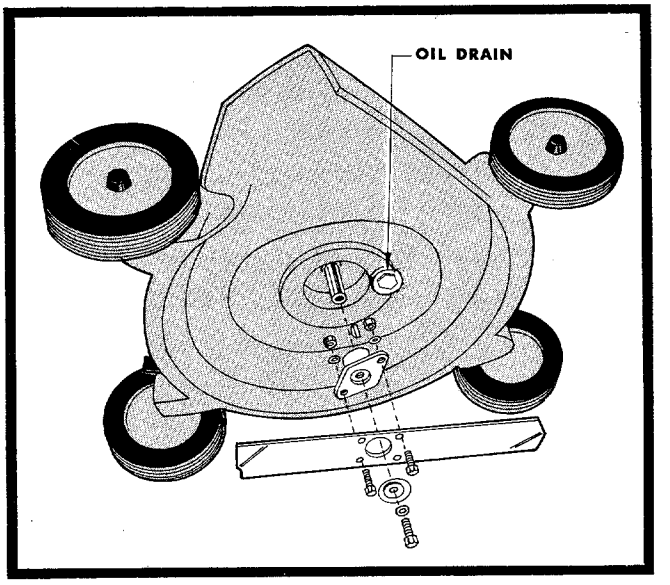
CAUTION: Do not make adjustments with the engine running.




## TO CHANGE OIL

Engine oil should be changed after the first 5 hours of operation and each 25 hours of operation thereafter.

Drain oil while engine is warm. Disconnect spark plug wire and secure at least 1" away from spark plug. Block right hand side of mower up about 4" high and set shallow one quart container beneath oil drain. Remove oil drain plug from sump and allow oil to drain completely. Replace plug and refill with S.A.E. #30 oil. (1¼ pints approx.)




## TO REPLACE BLADE

1, Be sure engine is stopped, disconnect spark plug wire and secure at least 1" away from spark plug.
2. Tip mower on the side and remove the blade and adaptor from engine crank.
3. Remove the blade from the adaptor and replace with a new blade. Reassemble to engine.
4. Resharpening of an old blade should only be attempted by a Wards Service Center. This way proper blade balance will be maintained.

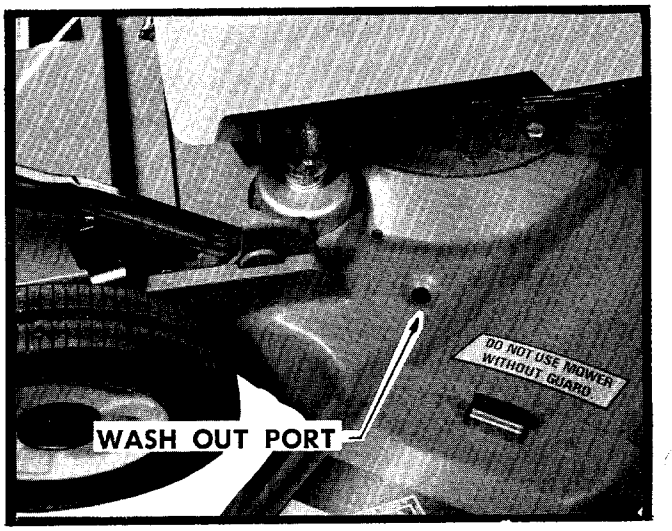
## BREAK-IN PERIOD

During the first ten hours of operation, check the following items frequently:

Oil Level
All nuts, bolts and screws for tightness
Condition of Blade

## TO USE WASH OUT PORT

After mowing, place hose end (without nozzle) into opening located next to discharge chute. Using moderate water pressure, run engine at full throttle speed for about two minutes. This flushes out accumulations of grass clippings from underneath mower housing. DO NOT wash the top. It may be necessary to tilt the mower back on the rear wheels after washing to drain any water which may have accumulated on the top of the housing.



# Service Record

| DATE | DESCRIPTION |
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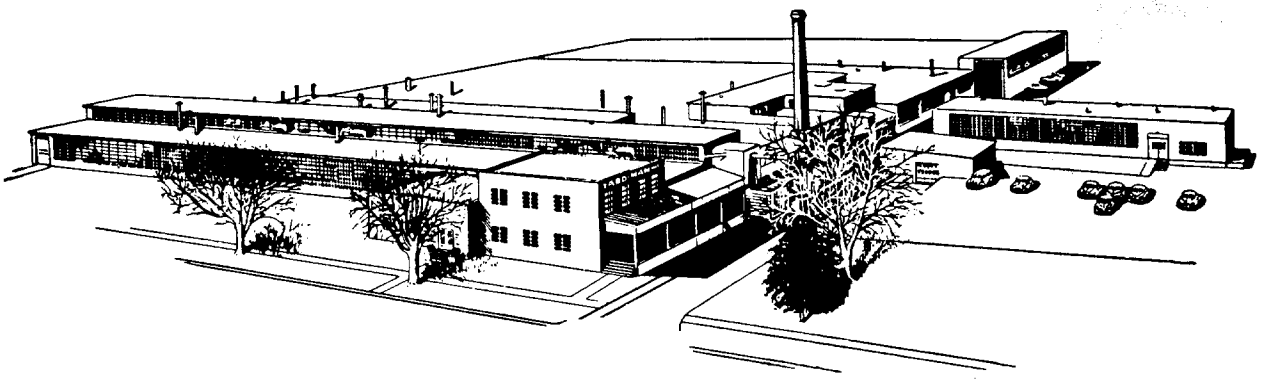

# WARRANTY

We guarantee all parts against defects in material and workmanship for a period of one (1) year from the date of purchase when used for residential. 90 days for commercial.

We agree to repair or replace without charge to the original Purchaser, including labor, any part or parts upon examination by a Yard-Man Authorized Dealer to be defective within the guarantee period except the engine which is warranteed separately by the manufacturer. **All transportation charges for replacement under this guarantee must be paid by the Purchaser.**

This guarantee will not apply to a unit which has been subjected to misuse, negligence, accident or to a unit which has been altered in any way.

**YARD-MAN**

Yard-Man reserves the right to make engineering changes without prior notification or responsibility to the Purchaser.